

The most certain idea to be derived from Herodotus's words is, that in his time *a rise of 15 or 16 cubits was necessary to water the land*, which is equal to 7·8 metres and 9·2 metres, if we reckon that Herodotus used the royal cubit of 525 millimetres; or 6·8 metres and 7·2 metres, if the vulgar cubit of 450 millimetres. As these quantities are still to be found as the actual rise of the Nile, they give us a proof of Herodotus's accuracy. As the change has been but trifling within the twenty-three centuries elapsed since his visit to Egypt, I see no reason to believe that it had been so much greater (according to the priests) during the nine centuries previous to his journey. They had, besides, an interest in foretelling as impending that dreaded barrenness which could only be arrested by their prayers and sacrifices.

XIV.—*The Isle of Skyros.* By THOMAS GRAVES, Esq., Captain of H.M.S. Volage. Communicated by Rear-Admiral Sir Francis Beaufort.

[Read March 27, 1849.]

ALL the accounts that have been left of the Isle of Skyros by the ancient historians and geographers have been so well epitomised by Dr. Cramer in his 'Ancient Greece,' and Tournefort and Colonel Leake have so faithfully described the position of the town, and of the ancient remains still to be traced in its neighbourhood, that it would be presumptuous in me to alter their language or to add to their statements; and therefore, in the following notices, I shall only attempt to bring down their descriptions to the present day, or to supply such facts as were not within their reach to obtain. But in order to introduce the reader fairly into the island, I shall begin with a quotation from the Colonel's 'Travels in Greece.'

"The town of St. George stands within a few miles of the N.E. extremity of the island, and covers the northern and western sides of a high and rocky peak" (605 feet above the sea), "which to the eastward falls steeply to the beach." The plain to the N.W. "is grown with corn, vines, and figs, and is refreshed by a small perennial stream, watering many gardens as well in the plain as a little valley above it, where the oaks and planes, the walnut and other fruit-trees, which shade the bank of the stream, give this little district an appearance very different from that of the dry and naked Cyclades." It may be added that, in comparison with them, this island, in point of scenery and capability, is a Paradise.

"On the table-summit of the rock which crowns the town are the ruins of a castle, inclosing many houses, which are now

abandoned. The castle was the site of the Acropolis of the ancient city of Skyros, justly described by Homer as the lofty Scyrus. Remains of Hellenic walls are traced round the edge of the precipices, particularly at the northern end of the castle; others halfway down the peak just include the town in that part, and in another place a piece of wall occurs among the modern houses. But the greater part of the ancient city was to the eastward, towards the sea. In this direction there remains a large semicircular bastion, almost entire, and built of horizontal courses of masonry, which diminish in the height of each course towards the top. From thence the wall is traced along the slope above the sea as far as a round tower, which is still standing to half its height; about fifty yards beyond it are the remains of another, and from each of them a wall is traceable down the slope as far as the cliffs which overhang the sea."

The present town extends from the summit of the Acropolis to the base of the hill, and comprises the most miserable collection of habitations possible, separated from each other by narrow lanes, the feeding and lounging-places of pigs in summer, and during the winter perfect gullies of filth.

Within the Acropolis—which at a more modern date was fortified by the Venetians, as the lanky and unhappy lion, figured in marble and inserted in the wall above its present entrance, sufficiently indicates—all is ruin and desolation, for the inhabitants, no longer dreading piratical intruders, have almost abandoned their former stronghold and place of refuge, which, between winter torrents and occasional earthquakes, is fast crumbling into decay. The effects of an earthquake that occurred in 1840 are apparent; and the Church of Episcopis, though evidently a substantial edifice, was so shaken as to be now deserted. Several houses built on the edge of a precipitous cliff were overturned, and in their fall destroyed the path leading to the only place of security. A new approach was indeed immediately constructed, but its outer wall is already tottering, and a heavy rain would place it in great jeopardy.

The lower town, built on a more gradual slope, and yearly increasing, contains the whole population of the island. The houses, as is usual among the Greek islands, are flat-roofed; "the terraces of the roofs," as Colonel Leake says, "are covered with a peculiar kind of earth found in the descent towards the plain, and which is said to possess the property of resisting the most continuous rain." The chimneys are, as he describes, still in the corners of the rooms; but the "earthen jars and pots, pewter plates and dishes," have almost disappeared.

A school-house was commenced a few years since by the Greek government, and its situation was well chosen, but the building has been for some time at a stand-still for want of funds, and its unroofed walls are conspicuous on entering the town.

In 1848 the population of the whole island was 2630 men, women, and children.

Four or five caiques only appear to belong to the place, which is the more extraordinary, as every requisite for building vessels of that scantling is at hand; and several loads of crooked timber, fit for their knees and timbers, are annually sent to Syra. Fir-trees, although not so abundant as in former times, are still sufficiently plentiful, and planks might be obtained with facility.

The oaks are used only for fuel, and, though many of them are of the Velanidhi kind, no use is made of the acorns.

No silk is now exported.

The vineyards scarcely produce sufficient wine for the consumption of the inhabitants. The grapes are small and ill-flavoured, apparently the result of carelessness and neglect in their cultivation. After a bad vintage, wine is procured from Kumi, a town on the eastern side of the Negropont.

From 40,000 to 45,000 kila of corn, wheat, and barley are annually exported; but the supply of the wax, honey, oranges, and lemons, enumerated by Colonel Leake, appears to have decreased. On the other hand, madder-roots are so much more abundant, that, instead of the 400 kantars mentioned by him, 1000 leave the island every autumn.

Sheep and goats were last year numbered at 15,000, and bullocks at 3000, of which only a small portion are exported—about 1000 of the former, and 100 of the latter.

Colonel Leake visited the island in 1806: it then belonged to the Turks, and the population was small, as compared to its extent. Fifteen years have elapsed since I first sought shelter there; and, according to my notes, it contained about 2000 souls, being then, as now, a Greek island, and yet its present population has only increased to 2630. With a fine healthy climate, a good soil, plentifully supplied in most parts with water, a good harbour for large ships, and numerous creeks in which coasting-vessels can anchor in safety, it appears strange that so little improvement, or so little increase of its inhabitants, have taken place. Now too it is free from piratical visits, to which, in troubled times, and from its position, it was peculiarly subject, and which the site selected for the town evidently proves; and, having been placed under the protection of a fixed government, it ought to have rapidly advanced in prosperity.

There is such a breadth of arable land, as compared to the

population, that one-half of the cultivated portion of the island is allowed to lie fallow for two years; so that what would appear to the casual visitor a well-cultivated district, would by a traveller in the following year be described as a dreary waste.

The superiority of the breed of Skyros goats, as noticed by Strabo, still maintains its ancient celebrity, and the flocks are numerous. The southern and almost uncultivated part of the island is their principal resort, where, herded among the rugged hills and sheltered ravines, wild shrubs and brushwood suffice for their food.

Its ancient marble-quarries, the treasures of which at an early period were in great request at Rome, are now deserted, and only to be distinguished by a searching eye. The localities of those that were discovered by us have been duly noted in the chart.*

As regards the inhabitants, the men are a fine, stout, and athletic race; but the women are the plainest that I have seen in the Greek islands.

Dr. Baxter, who has served with me for many years, and who has by long experience made himself fully acquainted with the sanitary state of the various districts that he has visited, has furnished the following valuable information as connected with the diseases prevailing in this island.

He states that the inhabitants are not so frequently attacked with fever as those of the other Greek islands, for which he thinks that the elevated position of their town, and the absence of all marshy ground and stagnant water, sufficiently account. It certainly does not arise from their cleanliness, either in person or clothing; and the females, unwilling to give up their ancient costume, envelope their heads in shawls and coverings even more preposterously than the Hydriotes, whose head-dress is notoriously ridiculous and uncomfortable.

The diseases to which they are most subject are rheumatism, thoracic affections, haemoptysis, palpitation of the heart, and dyspepsia. The children, being never washed, are sickly and pale. Hernia is frequent among them, and is attributed by their mothers to their continual crying. But from what does the crying originate? Probably from neglect, hunger, or improper food. Both men and women have very bad teeth—the latter, before arriving at the age of 30, lose some of their incisors. As they advance in years many become blind from amaurosis, or cataract.

“ Skyro,” Colonel Leake observes, “ is divided into two parts, nearly equal, by an isthmus, which lies between Port

* About to be published by the Admiralty.—ED.

Akhili and the great harbour, called by the Greeks *Kalamitza*, and by the Italians *Gran Spiaggia*." Crossing this isthmus, $1\frac{3}{4}$ miles in length, by a rugged path, practicable only to the surefooted ponies for which the island is celebrated, traces of ancient terraces on either side of the valley will be discerned by the eye of an antiquary. In ancient times that whole space must have been fully cultivated.

The greater part of the southern portion is uncultivated, and, as the Colonel says, consists of "high mountains, which are intersected by deep gullies, and are rugged and bare except towards the summits, where they are clothed with oaks, firs, and beeches. The northern part of the island is not so mountainous, and all the hills bear corn, vines, and madder."

To describe the island more professionally, it may be called fifteen miles in length, in a N.W. and S.E. direction, and is divided into two nearly equal parts by a narrow isthmus.

Commencing at its N.W. extremity, off which a group of islets or rocks, known to the Greeks by the general appellation of *Pothies*, presents to the stranger a formidable barrier to a near approach. They are [eleven in number, low, and surrounded by shoals and breakers, which stretch off $2\frac{1}{2}$ miles.

From the above point the coast trends in a S.E. direction $6\frac{1}{2}$ miles, as far as *Prokolako-nisia* (islets), and is almost inaccessible, being formed of sandstone ridges, which lie parallel to the shore, and only a few inches above or under water, so that, except at *Palamaron* and *Glossa*, there is no practicable spot at which a boat can land, unless in the most favourable weather.

This forbidding shore bounds to the eastward the finest plain on the island, that of *Katà Kampos*, which on the other side rises into hills of moderate elevation, the slopes of which, as well as the plain itself, are partially cultivated; but from the indolence of the natives, and the smallness of the population, their capabilities have never been fairly developed.

Port *Molos*, as it is called, lies nearly mid-way between *Poreiá* Point and the town, and may be recognised by its solitary windmill. It is formed by a parallel ledge of sandstone rocks, almost level with the sea, and only a quarter of a cable distant from the beach. It is, however, the resort of numerous caiques during the summer, though the depth within is from 6 to 9 feet only, and yet, from its proximity to the town, is much frequented. The entrance is so blind, that, without a previous acquaintance, a boat even would find it difficult to discover.

Convenient anchorage may be taken up off the town in summer, for then, the prevailing winds being from the northward, it is well sheltered. But the rock of St. Demetrius,

which lies three-quarters of a mile off shore, with only 3 feet on its shoalest part, must be avoided. Between the rock and the coast the depths are from 5 to 7 fathoms.

Proceeding southward from the town until reaching Port Akhili, a distance of 2 miles, the shore is skirted by outlying rocks, and again scarcely affords a landing-place for a boat, even under favourable circumstances.

From the base of Malla, and the hills between it and that on which the town is built, a low sandy plain, partially cultivated with vines, and a few fig-trees scattered among them, extends in an easterly direction three-quarters of a mile, the extremity of which is termed Poreiá Point, and is easily distinguished by two windmills, close to which are the several rocky islets previously mentioned. The rock nearest to the Poreiá Point is the largest; between it and the point vessels drawing too much water for the neighbouring little creek of Molos moor stem and stern, with hawsers to the shore on either side, and ride in security during the summer.

The sandstone rocks on the point, as also the rocks opposite, have evidently been quarried, and probably furnished the materials for the walls, being more easily worked than the limestone hills, which were nearer.

The road from the town to Kalamitza runs along this shore, and in one spot a short distance to the northward of Strongylo ancient chariot-ruts are discernible.

Port Akhili is resorted to by caiques and small craft during the winter, for then Port Molos is considered unsafe.

A fruitless search was made in this neighbourhood for ancient remains, unless the foundations of a round tower on a hill of slight elevation which separates Port Akhili from Strongylo Bay may be excepted.*

Two plains here extend across the island—one from Akhili to Kalamitza, which is laid out in corn-fields, and the other from Strongylo to Linaria Bay, where a few vineyards flourish.

Leaving Port Akhili, and continuing a south-easterly direction, the coast is of a most forbidding aspect, presenting to the eye a succession of stupendous cliffs, broken only by deep ravines, which in the winter serve as outlets to the mountain torrents of Kokhelas and its adjoining range.

This description equally applies after rounding the eastern extremities of the island, until we arrive at Tre Bouki, where the coast is diversified in appearance by several islands, which are evidently landslips from the shore.

Lying at the base of Mount Kokhelas, which is the highest in the island, and 2566 feet above the sea, surrounded by

* Perhaps the form of this tower may give the name to the bay, as *στρογγύλος* means Round.

desert woody hills, with great depth for anchoring, and no fresh water, with narrow and difficult channels to beat through in northerly winds, and offering very imperfect protection in southerly gales, it is in every way inferior as a port to Kalamitza. Should necessity compel a man-of-war to enter this port, the only anchorage is off a stony beach on the shore of the island, and very close-to, in from 12 to 13 fathoms, remembering that the bank is so steep, too, that at $2\frac{1}{2}$ cables' lengths there are 17 fathoms.

After rounding Marmora Point we arrive in 3 miles at the Bay of Kalamitza, which has so long figured in modern charts under the various appellations of Grand Port, Gran Spiaggia, Port St. George de Skyro, &c., and affords the only anchorage for vessels of burden.

It is on the western coast, extensive, and tolerably sheltered from all winds, but, unfortunately, with a great depth of water.

There is no difficulty in discovering its position, as Skyropoulo, an outlying rocky islet of 617 feet in height, is conspicuously seen when approaching from the N. or S., and from the summit of which the entrance bears E.S.E. about 7 miles. Several rocky islets of moderate elevation lie off its southern shore, and to the westward it is protected by the long, narrow, barren island of Balaksa.

To the northward of this latter island there is a narrow channel, with an inconsiderable depth of water, and consequently only to be attempted in case of necessity; yet there coasting-vessels and small craft frequently seek shelter.

Abreast the valley which divides the island, and in front of its white beach, is the only safe anchorage; but there any vessel may ride in safety, if not afraid of the shore, and may moor in 10 or 12 fathoms. Farther out, and in deeper water, during the strong northerly winds which prevail in summer, she would probably be driven off the bank, which is steep. In winter the best berth is under the high land immediately to the southward of the isthmus, between it and the first rocky projection.

But the greatest recommendation of this bay to a sailor is its abundant supply of fresh water. About half-a-mile to the southward of the above anchorage, and close to the shore, will be seen an overshot mill, a few hundred yards above which an excellent spring bubbles up from the steep face of the mountain side. When the island was under Turkish rule, this water was collected in a fountain, which is now in ruins; but an inscription in Turkish and in modern Greek shows that it was constructed in the year 1799. The water now runs to waste, and the mill is likewise deserted.

From this anchorage the town of St. George is distant a

two hours' walk, and from thence fresh beef and mutton re easily procured and conveyed to the ship at a reasonable price. Wood is also plentiful and cheap.

Some few and slight remains of antiquity may be found in this neighbourhood.

On the northern shore of the anchorage, and near the beach, there is part of a marble column, still erect, which measures 5 feet in circumference, and stands 4 feet above the soil. Several similar fragments were lying prostrate in its vicinity, as well as some large squared stones, which apparently formed the foundations of a small temple—very probably of that to which Tournefort alludes as having been dedicated to Pallas.

A few hundred yards higher up we found the arched cistern mentioned by Colonel Leake; but it appears to have been a work of the middle ages, to secure a supply of water during the dry season. It is 50 feet in length, and 18 feet wide; the arch fallen in, but with the stucco on the base and sides almost perfect.

Crossing a rocky point between these ruins and the isthmus, the summit and slope of which had evidently been once formed into terraces, we discovered at the base three sarcophagi with large white marble covers, weighing probably 10 or 12 tons each. Such massive remains, their primitive form, and their conspicuous situation, seem amply to confirm the opinion advanced by Tournefort, that on this spot stood the ancient city of Scyrus.

In the several small bays to the northward of Kalamitza, coasting craft and caïques occasionally seek shelter, but no vessel of any burden; and though the various openings in the coast, named Stinangali, St. Phokas, Oros, &c., appear inviting, yet the steepness of their shores and their great depth of water render them almost impracticable.

Saint Phokas has an anchorage sometimes taken by small vessels during the strong northerly winds of summer, not only to obtain shelter, but to replenish their water from a well close to the beach at the head of the bay. Near this well, on a point covered with trees, and amongst the foundations of a dilapidated chapel, may be seen some ancient blocks of marble, but too much unconnected to venture an opinion on the building to which they formerly belonged.

Fronting the southern slope of Mount Oros, and close to the shore, is Kolouros Islet, and then the Mermingia Rock; and 3 miles farther Kotsoulis Islet, which affords some shelter to Kalogria Bay; but the anchorage is only the summer resort of coasting craft.

Markesi Bay completes the circuit of the island. On a small hummock at its western extremity there are some middle-

age or Venetian remains, apparently the foundation of a tower; and on a slight eminence to the westward, close to the shore, we found several rock sepulchres. In this vicinity a large portion of the rock has been quarried away, but with so very gradual a slope towards the sea, that it would almost appear as if intended to be continued down to the water's edge, for a slip to haul up the boats.

Slight as is the information contained in these pages, I cannot conclude without expressing how much I am indebted to my indefatigable assistants, Messrs. Stokes and Wyer, for their zealous aid, not only in all the operations of the survey, but in our mutual endeavours to acquire a competent knowledge of the interior as well as of the hydrographic features of the island of Skyros.

XV.—*The Formigas Bank, near Santa Maria (Azores).* By
Capt. ALEX. VIDAL, R.N. (Communicated by Rear-Admiral Beaufort.)

[Read 23rd April, 1849.]

THE bank of the Formigas lies N. $45^{\circ} 15'$ E. from the island of Santa Maria,* at the distance of 19.7 miles from Matos, its N.E. and nearest point.

It is formed by a submarine mountain of very irregular elevation, and which, traced to the depth of 200 fathoms, was found to extend $6\frac{1}{2}$ miles from N.W. to S.E., by about 3 miles in greatest breadth.

Near its western margin there is a narrow cluster of black rocks, known as the Formigas, which are about 800 yards in length by 150 in extreme breadth; their relative direction being north and south. The southernmost of them for about 350 yards forms a rather closely connected mass, having a small bay on the west. The northern ones are more separated from each other, and all are comparatively of little elevation, but their profile exhibits a few hummocks. That on their southern extremity, which is 27 feet above low-water springs, afforded a theodolite station, at which the true bearings of some points and heights on Santa Maria and San Miguel were ascertained. It is in latitude $37^{\circ} 16' 14''$ N., longitude $27^{\circ} 47' 06''$ W., and from observations made upon it on two consecutive days of very favourable weather, the following true bearings are derived:—Pico-alto, the highest peak on Santa Maria,

* For an account of the Islands of Santa Maria and St. Miguel, with Maps, *vide* Mr. Cousul Hunt's Papers in the fifteenth volume of this Journal.—ED.